

## **REMARKS/ARGUMENTS**

Claims 1-17 have been pending in the application. Claims 1-5 and 13-17 stand rejected, while claims 6-12 have been deemed to contain allowable subject matter.

### **Rejection of Claims 1-5 and 13-17 under 35 U.S.C. §103(a) over Bernstein and Lane**

Claims 1-5 and 13-17 have been rejected under 35 U.S.C. §103(a) as being anticipated by a combination of the Bernstein et al. patent and the Lane reference. Specifically, the Examiner finds Bernstein to teach a device for limiting inrush current wherein an AC source 10 is connected to a diode bridge 12 to supply converted power to a load. Bernstein's device includes an inrush limiting circuit between the diode bridge and the capacitor bank 22. Once the capacitor bank is fully charged, an IGBT 36 switches the rectified line voltage to a load. As Applicant understands the rejection, the Examiner contends that Bernstein teaches all of the elements of claims 1-5 and 13-17 except for the use of resistors in combination with a plurality of capacitors to suppress transients across the load.

The Examiner admits that Bernstein does not teach the use of resistors in combination with capacitor elements in the capacitor bank. However, he considers Lane to teach a shaft voltage suppression circuit having first and second sets of capacitor/resistor combinations connected across the load. He concludes that it would have been obvious to one of skill in the art to combine the teachings of Lane into the teachings of Bernstein to meet the claims because both patents teach conditioning of AC power into DC for supply to a load using diode bridges.

Applicant traverses the rejection as it might apply to the claims as amended herein. The surge suppressor of the present invention is useful for, inter alia, suppression of transient energy to a load from an ac power supply, such as might be founding large-scale

electrical transmission networks. Bernstein and Lane are quite different from the present invention in their effectiveness and applicability. Bernstein describes a circuit for limiting inrush current in a computer. Bernstein's device is useful for protecting the D/C bus of a computer, but is not useful for limiting transients that might harm loads connected on the A/C side.

Claim 1, as amended, recites a surge suppressor wherein at least one capacitor unit in the capacitor bank includes a combination of a capacitor in parallel with a resistor. At least this feature is not present in either Bernstein or Lane. Bernstein discloses a circuit wherein the capacitor bank 22 is described as being a "straight capacitor bank" (col. 3, line 62) and does not contain a resistor (see Fig. 1 of Bernstein). Also, it would not be obvious to include a resistor in parallel. Bernstein teaches that the use of a conventional resistor could result in "catastrophic failure." (see Bernstein, col. 1, lines 46-51).

Lane does not teach or suggest this feature either. Lane generally describes a suppression circuit for use with automotive motor shafts. Like Bernstein, it is useful for protecting the shaft and bearing but does nothing to protect loads from transient energy on the A/C side of the circuit. In Lane, the capacitors 70, 76 are contained within the positive bus 50 and are in series with the resistors 72, 78 rather than in parallel, as claim 1 recites.

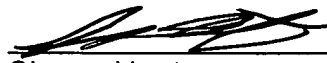
Because at least the recited capacitor bank structure is missing from both Bernstein and Lane, Applicant submits that the subject matter of claims 1-3, 5 and 16 is clearly patentable over the cited art.

Applicant submits that claims 13-16, as amended herein, are also novel and unobvious in view of the cited art. Applicant notes that independent claim 13 has been amended herein to recite a surge suppressor having a dual element time delay fuse overcurrent protector device.

The Commissioner is hereby authorized to charge any fees deemed necessary for this response to **Deposit Account No. 13-0010 (SQD-1008-US)**, maintained by Madan, Mossman & Sriram. The Examiner is invited to discuss this matter with Applicant's attorneys should any questions arise.

Respectfully submitted,

Dated: March 11, 2004



---

Shawn Hunter  
Reg. No. 36,168  
MADAN, MOSSMAN & SRIRAM, P.C.  
2603 Augusta, Suite 700  
Houston, Texas 77057  
Telephone: (713) 266-1130 (x 119)  
Facsimile: (713) 266-8510